

Nonclay Refractory Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
327125, Nonclay refractory manufacturing	2002..	84	106	5 391	220 541	3 774	7 648	133 886	632 820	466 271	1 103 628	34 775
	2001..	N	N	7 356	295 144	5 091	10 155	170 132	753 629	576 380	1 341 709	57 058
	2000..	N	N	7 644	314 773	5 289	10 597	179 299	783 854	658 680	1 431 787	99 681
	1999..	N	N	8 345	316 966	5 867	12 236	193 603	871 599	675 946	1 547 729	102 091
	1998..	N	N	7 876	296 426	5 567	11 539	184 355	868 881	621 892	1 488 938	101 890
	1997..	91	130	8 322	310 354	5 953	12 480	195 725	929 931	677 000	1 618 308	94 752

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
327125, Nonclay refractory manufacturing												
United States	1	106	60	5 391	220 541	3 774	7 648	133 886	632 820	466 271	1 103 628	34 775
Illinois	—	6	4	219	9 237	117	245	4 424	20 924	32 579	51 543	518
Indiana	1	8	3	189	6 803	157	224	5 149	18 508	15 201	33 413	419
Kentucky	2	3	2	369	14 337	282	609	9 607	44 030	34 957	82 647	1 585
Michigan	—	6	3	274	13 257	188	365	7 081	33 718	22 979	58 619	1 287
New York	—	6	5	504	20 729	365	717	13 585	50 172	42 408	90 391	1 347
Ohio	2	19	11	886	38 090	588	1 238	20 647	91 500	74 669	165 176	7 933
Pennsylvania	1	17	10	851	38 359	638	1 299	26 094	125 879	93 652	218 576	8 016

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
327125, Nonclay refractory manufacturing	
Companies ¹	number.. 84
All establishments ²	number.. 106
Establishments with 1 to 19 employees	number.. 46
Establishments with 20 to 99 employees	number.. 44
Establishments with 100 employees or more	number.. 16
All employees ³	number.. 5 391
Total compensation	\$1,000.. 303 956
Annual payroll	\$1,000.. 220 541
Total fringe benefits	\$1,000.. 83 415
Production workers, average for year	number.. 3 774
Production workers on March 12	number.. 3 809
Production workers on May 12	number.. 3 730
Production workers on August 12	number.. 3 782
Production workers on November 12	number.. 3 757
Production worker hours	1,000.. 7 648
Production worker wages	\$1,000.. 133 886
Total cost of materials	\$1,000.. 466 271
Materials, parts, containers, packaging, etc., used	\$1,000.. 357 543
Resales	\$1,000.. 57 403
Purchased fuels	\$1,000.. 22 971
Purchased electricity	\$1,000.. 21 959
Contract work	\$1,000.. 6 395
Quantity of electricity purchased for heat and power	1,000 kWh.. 439 000
Quantity of electricity generated less sold for heat and power	1,000 kWh.. S
Total value of shipments	\$1,000.. 1 103 628
Primary products value of shipments	\$1,000.. 931 726
Secondary products value of shipments	\$1,000.. 63 723
Total miscellaneous receipts	\$1,000.. 108 179
Value of resales	\$1,000.. 78 967
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 94
Value of primary products shipments made in all industries	\$1,000.. 1 019 139
Value of primary products shipments made in this industry	\$1,000.. 931 726
Value of primary products shipments made in other industries	\$1,000.. 87 413
Coverage ratio	percent.. 91
Value added	\$1,000.. 632 820
Total inventories, beginning of year	\$1,000.. 191 704
Finished goods inventories	\$1,000.. 97 868
Work-in-process inventories	\$1,000.. 29 017
Materials and supplies inventories	\$1,000.. 64 819
Total inventories, end of year	\$1,000.. 197 109
Finished goods inventories	\$1,000.. 95 286
Work-in-process inventories	\$1,000.. 27 062
Materials and supplies inventories	\$1,000.. 74 761
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 725 176
Total capital expenditures (new and used)	\$1,000.. 34 775
Buildings and other structures (new and used)	\$1,000.. 7 663
Machinery and equipment (new and used)	\$1,000.. 27 112
Automobiles, trucks, etc., for highway use	\$1,000.. 592
Computers and peripheral data processing equipment	\$1,000.. 3 880
All other expenditures for machinery and equipment	\$1,000.. 22 640
Total retirements	\$1,000.. 34 266
Gross value of depreciable assets at end of year	\$1,000.. 725 685
Depreciation charges during year	\$1,000.. 36 658
Total rental payments	\$1,000.. 11 144
Buildings and other structures	\$1,000.. 5 099
Machinery and equipment	\$1,000.. 6 045
Total other expenses ⁴	\$1,000.. 79 795
Response coverage ratio ⁵	percent.. 92
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 19 257
Communications services ⁴	\$1,000.. 2 374
Legal services ⁴	\$1,000.. 849
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 750
Advertising and promotional services ⁴	\$1,000.. 899
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 1 364
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 3 886
Management consulting and administrative services ⁴	\$1,000.. 1 212
Taxes and license fees ⁴	\$1,000.. 5 027
All other expenses ⁴	\$1,000.. 44 176

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
327125, Nonclay refractory manufacturing											
All establishments	1	106	5 391	220 541	3 774	7 648	133 886	632 820	466 271	1 103 628	34 775
Establishments with—											
1 to 4 employees	9	22	56	2 128	36	74	1 352	4 950	3 108	8 058	523
5 to 9 employees	9	14	97	4 043	71	149	2 690	9 164	6 162	15 326	1 030
10 to 19 employees	9	10	138	5 752	102	214	3 714	20 675	14 209	35 076	1 619
20 to 49 employees	4	28	905	35 340	639	1 296	20 760	88 664	74 606	163 609	7 943
50 to 99 employees	1	16	1 094	44 540	779	1 567	27 433	112 544	87 211	202 259	3 759
100 to 249 employees	—	13	1 931	82 941	1 349	2 787	50 828	227 616	190 265	418 692	13 494
250 to 499 employees	—	2	f	D	D	D	D	D	D	D	D
500 to 999 employees	—	1	f	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	39	222	9 357	160	333	6 132	22 317	14 780	37 097	2 474

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
327125	Nonclay refractory manufacturing	106	5 391	220 541	3 774	7 648	133 886	632 820	466 271	1 103 628	34 775
3271250	Nonclay refractories (except dead-burned magnesia)	106	5 391	220 541	3 774	7 648	133 886	632 820	466 271	1 103 628	34 775

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
327125	Nonclay refractory manufacturing	2002.. N	X	X	1 019 139
	1997.. N	N	X	X	1 480 190
3271250	Nonclay refractories (except dead-burned magnesia)	2002.. N	X	X	1 019 139
	1997.. N	N	X	X	1 480 190
32712501	Nonclay refractories (except dead-burned magnesia)	2002.. N	X	X	937 002
	1997.. N	N	X	X	1 417 263
3271250100	Nonclay refractories (except dead-burned magnesia) ¹	2002.. 44	X	X	937 002
	1997.. 60	N	X	X	1 417 263
3271250Y	Nonclay refractories, nsk, total	2002.. N	X	X	82 137
	1997.. N	N	X	X	62 927
3271250YWW	Nonclay refractories, nsk, for nonadministrative-record establishments	2002.. N	X	X	48 094
	1997.. N	N	X	X	27 774
3271250YWY	Nonclay refractories, nsk, for administrative-record establishments	2002.. N	X	X	34 043
	1997.. N	N	X	X	35 153

¹For additional detail, see Current Industrial Report MA327C, Refractories.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
327125	Nonclay refractory manufacturing		
00900001	Total materials .....2002..	X	357 543
	.....1997..	X	527 214
21232011	Clay, ceramic, and refractory minerals .....2002..	X	84 207
	.....1997..	X	233 653
32799205	Dead-burned magnesia and magnesite .....2002..	X	D
	.....1997..	X	45 104
32710000	Refractories, clay and nonclay .....2002..	X	130 719
	.....1997..	X	D
32700005	Other stone, clay, glass, and concrete products .....2002..	X	D
	.....1997..	X	D
32500003	Industrial chemicals .....2002..	X	422
	.....1997..	X	21 626
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	32 641
	.....1997..	X	93 882
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	51 300
	.....1997..	X	59 415

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.